DEPARTMENT OF TRANSPORTATION
FY 1999
5-YEAR INFORMATION TECHNOLOGY PLAN

Planning Context:
This document is the Department of Transportation (DOT) 5-year Information Technology (IT) plan. It describes last year's achievements as well as the future direction planned by DOT organizations. It also outlines DOT strategic initiatives to help achieve our business goals.

The plan contains the following information:
- Major accomplishments
- Strategic Goals and a description of IT initiatives to achieve them
- A list of initiatives with descriptions, justifications, and total life cycle costs

The 5-year IT plan continues to be developed by the DOT's IT organizations with support from their program offices. It builds upon prior IT planning efforts, the DOT Strategic Plan, National Performance Review, and new Capital Programming practices.

DOT IT Goal:
The DOT-wide IT goal remains the same. This goal is to improve mission performance, data sharing, system integrity, communications, and productivity through deployment of information system which are secure, reliable, compatible, and cost effective now and beyond the Year 2000.

Key DOT IT achievements and future plans:
During the last year, much of the focus of DOT organizations was on resolving potential problems arising from the Year 2000 (Y2K) millennium bug. DOT has been working closely with the transportation industry to ensure the many mission-critical IT systems that are of vital importance in ensuring public safety and mobility are Y2K-compliant (e.g., air traffic control systems; automated road, rail, and subway control systems; shipboard communications systems; hazardous material information systems). Significant resources will continue to be devoted to Y2K-related issues throughout the next year.

Information is a valuable commodity in enabling the public and the government to make sound transportation decisions. Because of this, DOT continually seeks ways to ensure transportation data is useful, accurate, up-to-date, and easily accessible. Use of the Internet has become irreplaceable as a means of sharing information and educating people about transportation matters. Additionally, more and more new web-enabled applications are being launched which allow information stored in databases to be manipulated and extracted to meet specific user needs irrespective of underlying proprietary systems/software. At the same time, measures are being implemented to ensure individual privacy is protected.

DOT's IT architecture is rapidly being transformed. Hardware, software, and networks are being modernized – largely in response to Y2K concerns. Many applications are in the process of migrating from a mainframe to an open-system, client-server environment. Increasing scrutiny is being directed to critical infrastructure security considerations in the development, deployment, and maintenance of IT systems. Significant changes are anticipated in the telecommunications arena as networks are consolidated and a new Departmental telephone service provider is selected.

IT has become an integral part of virtually all transportation systems. Successful mission performance is now heavily reliant on IT -- whether it be for command and control functions, search and rescue activities, or air, surface, and marine navigation systems which use satellites for global positioning. The potential uses of new "smart" technologies emerging under intelligent transportation system initiatives are seemingly endless: microchips embedded in bridges and roads monitor their conditions and provide warnings to enable preventative action before unsafe situations arise; electronic toll collection devices ease congestion and facilitate direct customer billing arrangements; automated emergency calling systems speed accident response, on-line data collection is being employed to mitigate paperwork burden and enhance productivity, etc.

As the millennium approaches, it is evident that IT will be an essential component in achieving DOT strategic goals. But IT alone is not enough; people are critical in exploiting the benefits that can be derived from IT. That is why the acute shortage of available technical expertise is of special concern. DOT and industry must forge partnerships to overcome this workforce challenge so that IT's potential can be harnessed and the mission and program initiatives highlighted in this plan can be accomplished.